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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,099	11/28/2001	Lutz Muller-Kuhrt	101215-63	4081

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EXAMINER

DRODGE, JOSEPH W

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 02/21/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,099

Applicant(s)

MULLER-KUHRT ET AL

Examiner

JOSEPH DRODGE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.

If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.

Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 28, 2001.
- 2a) This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

4) ☐ Interview Summary (PTO-413) Paper No(s): _____

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s): _____

6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-15 and 18/(14 or 15) are rejected under 35 U.S.C. 102(b) as being anticipated by

Stalling et al.

Stalling et al disclose a solvent extraction/chromatographic separation/detection system comprising single pump unit 22, parallel systems each comprising chromatographic columns, (column 10, lines 5-65, etc.), an initial pressure meter on a common distribution part of the system (see pressure meter 32), downstream flow meters and pressure gauges (see flow meters 105 and discussion in column 4, lines 25-30 and column 13, lines 65-68), computerized control of flow rates and pressures in the initial distribution part of the system by control of pumping rates and by regulating valves upstream and downstream of the chromatographic columns, see injection valves 121 and UV detectors. Various portions of the text discuss system operation to reduce stagnation in the lines and optimizing overall process times. Column 17, lines 5-23 discusses the overall computer control of the system flow.

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Concerning claims 3, 5 and 6, see the various pressure and flow meters and valve and pump flow regulators depicted in figure 1.

Concerning claim 2, column 12, lines 49-51 disclose digital computer control.

For claim 4, see column 14, lines 26-27 and disclosure of metering valve 50 and nearby flow meter 105.

Regarding claims 7-11, see injection loops 130, multi-way valves 34 and injection valves 121, also see UV detectors 81.

Regarding claims 12, 14, and 15, see extraction columns 18, fractionating columns 76, and large plurality of columns in column 16, lines 14-17.

3. Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Safir et al patent 6,461,515, having an effective filing date of April 3, 1998.

Safir et al disclose simultaneous feeding of both samples and liquid carrier phases to parallel chromatographic columns, see in particular, the Abstract and column 12, line 63-column 13, line 3.

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 16, 17, 18/16, 18/17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Safir et al in view of Stalling et al.

Safir et al further disclose use of calibration samples to determine retention times and influence setting of operation parameters (column 62, line 58-column 63, line 14 and column 67,

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lines 38-59) and microprocessor/controller to control and regulate system flow rates and pressures (column 26, lines 13-60 and column 30, lines 56-60).

These claims differ from Safir et al, as applied to claim 19 above, only in requiring use of an upstream common pressure meter and downstream individual system flowmeters to control and regulate flow rates and pressures in the achieving of achieve simultaneous separation in the parallel chromatographic columns.

Stalling et al teach the use of flow meters and pressure gauges in the control of system flow rates and pressures (see initial pressure gauge 32 and discussion in column 13, lines 65-68 and flow meter 105 and discussion in column 4, lines 25-30). At the time the present invention was made, it would have been obvious to one of ordinary skill in this art to have augmented the Safir et al system to include the regulating flow meters and pressure gauges of Stalling et al, in order to operate the system so as to avoid any stagnation in the lines or columns and thus further speed up the overall process.

Regarding claim 18, see Safir et al in column 18, lines 22-40 drawn to discussion of a large number of parallel columns.


7 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burkhartsmeir patent 3,922,223 and Scott et al patent 3,847,550 are of interest concerning early efforts to operate chromatographic column separation in parallel.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Drodge whose telephone number is (703) 308-0403. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM - 4:45 PM.

The fax phone number for this Group is (703) 872-9310 or (703) 872-9311 for after final submissions. When filing a FAX in Tech Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


Joseph W. Drodge
Primary Examiner
Art Unit 1723

JWD
February 10, 2003